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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,931	11/26/2001	Nobuaki Hashimoto	103092.02	9980

25944            7590            07/15/2003  
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ALEXANDRIA, VA 22320

EXAMINER
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LEE, HSIEN MING

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/991,931	HASHIMOTO, NOBUAKI
Examiner Hsien-Ming Lee	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 13 March 2003.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 53-73 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 55,57,59,61,63 and 65-73 is/are allowed.

6) Claim(s) 53,54,56,58,60,62 and 64 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 26 November 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. 09/271,336.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.

4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Remarks**

1. The objection to specification, claims 70 and 71 and double patenting rejection to claims 53-73 are withdrawn in response to applicant's amendment filed 3/13/03.
2. Claims 53-73 are pending in the application.

### ***Claim Objections***

3. Claim 53 is objected to because of the following informalities: unclear terminology (line 5) "stop up the penetrating holes." Does it mean – block the penetrating holes --? Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 53, 54, 56, 58, 60, 62 and 64 are rejected under 35 U.S.C. 102(e) as being anticipated by Imasu et al. (US 6,208,525).

In re claims 53, 54, Imasu et al. in Fig. 12 and related text expressly teach the claimed substrate 19 having penetrating holes 19A formed therein, the substrate 19 having a wiring pattern 15/13 adhered on one side thereof by an adhesive material 16 over a particular region of the one side including the penetrating holes 19A, a part of the adhesive material 16 formed on internal wall surfaces forming the penetrating holes 19A so as not to block the penetrating holes

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19A, wherein a part of the adhesive material 16 enters and exists within the penetrating holes 19A.

In re claim 56, Imasu et al in related text also teach that the adhesive material 16 is an adhesive tape (i.e. sheet)(col.8, lines 1-4).

In re claim 58, Imasu et al. in Fig. 12 further teach that the wiring pattern 15/13 includes first 15 and second 13 portions, a part of the first portion 15 positioned over each of the penetrating holes 19A, the first portion 15 having a greater width than the second portion 13.

In re claim 60, Imasu et al. inherently teach that the substrate 19 is an insulating substrate. If the substrate were not an insulator, a short-circuit would occur among the adjacent conductive members 4A, 13 and 15.

In re claim 62, Imasu et al. also teach that the substrate 19 is a printed substrate (i.e. wiring board).

In re claim 64, Imasu et al in related text also inherently teach an anisotropic conductive material 16 having conductive particles dispersed in an adhesive 16 (col.8, lines 3-4).

***Allowable Subject Matter***

6. Claims 55, 57, 59, 61, 63, 65-73 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

In re claims 55, 57, 59, 61, 63, and 65, Imasu et al. to US 6,208,525 teach the claimed substrate but neither teach nor suggest that the substrate has *protrusions formed in the internal wall surfaces of the penetrating holes* by the *material constituting the substrate*.

In re claims 66, 70 and 72, Imasu et al. to US 6,208,525 neither teach nor suggest carrying out punching from the side of the substrate on which the adhesive material is provided

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and in the direction of the opposite side thereof to form penetrating holes and *to draw a part of the adhesive material into the penetrating holes.*

In re claims 67-69, 71 and 73, Imasu et al. neither teach nor suggest having penetrating holes in which the *internal all surfaces have protrusion.*

***Response to Arguments***

8. Applicant's arguments filed 3/13/03 have been fully considered but they are not persuasive.

Applicant's argument is on the ground that Imasu does not teach a wiring pattern adhered on one side of a substrate by an adhesive material because Imasu discloses bump electrodes 15 and external terminals 13 adhered on one side of the substrate 19 by the adhesive material 16 (Fig. 12).

In response to the argument, during patent examination, the pending claims must be given the broadest reasonable interpretation consistent with the specification. See M.P.E.P. 2111. In this case, "wiring pattern" has not been set out the special definition explicitly and reasonable clarity, deliberateness and precision in the originally filed specification (refers to pages 13-16). Therefore, the "wiring pattern" as claimed has been interpreted as "a conductive patterned member"; and the bump electrodes 15 and external terminals 13 of Imasu act as the "conductive patterned member."

Since the aforementioned term in the claims is not limited to the special definition provided in the written description, the teachings of Imasu reads on the claims.

***Conclusion***

9. Applicant's amendment filed 3/13/03 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hsien-Ming Lee whose telephone number is 703-305-7341. The examiner can normally be reached on M-F (9:00 ~ 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 703-306-2794. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-0142 for regular communications and 703-305-0142 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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Hsien Ming Lee  
July 11, 2003



WILLIAM DAVID COLEMAN  
Primary Examiner